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| EXAMINER |
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PAINTER, BRANON C

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3635

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/575,925 | Applicant(s) HEATHER ET AL. | |
| | Examiner BRANON C. PAINTER | Art Unit 3635 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 and 41-57 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-39 and 41-57 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>04/14/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement filed 04/14/06 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the foreign patents referred to therein have not been considered unless cited on the notice included with this action.

Specification

3. The disclosure is objected to because of the following informalities:
 - a. Page 17, line 20, "fron." For the purpose of this examination, the examiner presumes this should read "front."
 - b. Appropriate correction is required for all the preceding objections.

Claim Objections

4. Claims 6, 7, 25, 30, 32, 34-36, 47, 48, 53, and 57 are objected to because of the following informalities:

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- a. Claim 6, “region 35.” For the purpose of this examination, the examiner presumes this should read “region.”
- b. Claim 7, “faces 5.” For the purpose of this examination, the examiner presumes this should read “faces.”
- c. Claim 25, “screw threadedly.” For the purpose of this examination, the examiner presumes this should read “threadedly.”
- d. Claim 30, “.of.” For the purpose of this examination, the examiner presumes this should read “of.”
- e. Claim 32, “range 25.” For the purpose of this examination, the examiner presumes this should read “range.”
- f. Claims 34 and 53, “and/or.” For the purpose of this examination, the examiner presumes this should read “or.”
- g. Claim 35, “module.including.” For the purpose of this examination, the examiner presumes this should read “module including.”
- h. Claim 36, “of 5.” For the purpose of this examination, the examiner presumes this should read “of.”
- i. Claims 47, 48, and 53, “storey.” For the purpose of this examination, the examiner presumes this should read “story.”
- j. Claims 47 and 48, “inter storey.” For the purpose of this examination, the examiner presumes this should read “inter-story.”
- k. Claim 57 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous

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claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The method of 54 requires construction of the structure of claim 57.

- I. Appropriate correction is required for all preceding objections.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-39, 45, 47, and 49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
7. Claims 1, 39, and 49 are rendered vague and indefinite by the phrase "the fastening elements of each set including two fastening elements". The circuitous language makes it unclear when the elements stop including two of themselves in each set. The subset of fastening elements should be referred to by a different name, for instance "fasteners", as in "the fastening elements of each set including two fasteners".
8. Claims 2-4, 20-22, 26-29, 45, and 47 are rendered vague and indefinite by reference to "fastening elements". It is unclear whether the set of fastening elements or the subset, as discussed above. For the purpose of this examination, the examiner presumes that all references to "fastening elements" refers to the set.

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9. Claims 42 and 43 are rendered vague and indefinite by the phrases "approximately one...unit width". A claimed structure cannot be further limited by comparison to an unclaimed structure (in this case, the "given unit width"). For the purpose of this examination, the examiner presumes that any width may be considered a "given unit width".
10. Claims 2-39 are rejected as being indefinite for depending from an indefinite claim.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. **Claims 41-43, 45, 47, 50, and 53-57 are rejected under 35 U.S.C. 102(b) as being anticipated by DiMartino, Sr. (4,599,829).**
13. Regarding claim 41, DiMartino discloses a modular building having all of the applicant's claimed structure, including:
 - a. A multiplicity of modules (11, Fig. 1) forming a portion of a building, each module having a generally cuboid shape with side, end, top, and bottom faces (11), being hollow and defining a space suitable for occupation by a person (Fig. 8, 9).
14. Regarding claims 42 and 43, DiMartino discloses a majority of modules having a width and length of one times their given width and length (11).

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15. Regarding claim 45, DiMartino discloses a foundation interface with a lower face (90, 93, Fig. 4) capable of resting on a foundation and an upper face carrying connector elements (108, 110) capable of engaging with fastening elements.
16. Regarding claim 47, DiMartino discloses an inter-story interface including upper and lower connecting elements (85, Fig. 7).
17. Regarding claim 50, DiMartino discloses modules fastened together with aligned openings in adjacent walls allowing traffic therethrough (130; Fig. 9).
18. Regarding claim 53, DiMartino discloses modules fastened side-by-side, end-to-end, and vertically (Fig. 1).
19. Regarding claims 54-57, the combination renders the claimed method steps obvious since such would be the logical manner of using the combination.
20. **Claims 35-37 and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Grogan (5,072,845).**
21. Regarding claim 35, Grogan discloses a module having all of the applicant's claimed structure, including:
 - a. A generally cuboid shape having side, end, top, and bottom faces (10), fabricated from metal (c. 4, 42-44).
 - b. The module being hollow and capable of human occupation (Fig. 1).
 - c. Fastening elements (36, 34) capable of engagement other modules.
22. Regarding claim 36, Grogan discloses an exterior width between 2350mm and 2500mm (96 in.).

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23. Regarding claim 37, Grogan discloses an exterior width between 2350 and 2700mm (102 in.).

24. Regarding claim 39, Grogan discloses a module with fastening elements capable of engagement by standard equipment (36).

- a. The examiner notes applicant is claiming “any of the features of”, i.e. it is not necessary to meet all the potential limitations, only one.

Claim Rejections - 35 USC § 103

25. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

26. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

27. The U.S. Supreme Court supplied seven rationales in *KSR International v. Teleflex Inc.*, 550 USPQ2d 1385, that, by following the factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), establish a *prima facie* case of obviousness:

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- (a) Combining prior art elements according to known methods to yield predictable results;
- (b) Simple substitution of one known element for another to obtain predictable results;
- (c) Use of a known technique to improve similar devices, methods, or products in the same way;
- (d) Applying a known technique to a known device, method, or product ready for improvement to yield predictable results;
- (e) "Obvious to try" - choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;
- (f) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations are predictable to one of ordinary skill in the art;
- (g) Some teaching, suggestion, or motivation to combine prior art references that would have led one of ordinary skill to modify the prior reference teachings to arrive at the claimed invention.

28. The Examiner notes that above rationales are merely exemplary. For more information, see MPEP § 2141.

29. **Claims 1-10, 17-21, 30, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grogan (5,072,845).**

30. Regarding claims 1 and 30:

- a. Grogan discloses a module (10, Fig. 1) including:
 - i. A generally cuboid shape having side, end, top, and bottom faces (10), fabricated from metal (c. 4, 42-44).
 - ii. The module being hollow and capable of human occupation (Fig. 1).
 - iii. Fastening elements (36, 34) capable of engagement by equipment.
 - iv. A first set (36 on left) and second set (36 on right) of fastening elements near the top, each set including two fastening elements spaced apart from one another at a spacing of about 2260 mm (c. 2, 10-15).
 - v. An overall exterior width of greater than 96 inches, and specifically for instance 102 inches (c. 4, 46-49).

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- b. Grogan does not expressly disclose a width greater than 2700 mm (106.3 in.) [claim 1] or in the range of 2700 mm to 5000 mm [claim 30].
- c. It would have been an obvious matter of design choice to modify the modules of Grogan by giving them the claimed width, since applicant has not disclosed that such specific width solves any stated problem or is for any particular purpose and it appears that the module width of Grogan would perform equally well as a modular transportation device.
- d. The above combination teaches the claim limitations except for the specifically recited dimensions. Applicant has failed to establish a criticality for the explicitly claimed dimensions. In *Gardner v. TEC Systems, Inc.*, the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device. *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984) (citing MPEP 2144.04(IV)). From the above reasoning and for the lack of unpredictable results, it would have been an obvious design choice to dimension the combination as specified in this claim.
- e. Furthermore, modifying the module of Grogan by giving it a width greater than 106.3 inches would have been beneficial, as it would have provided the storage module with greater internal space for cargo.

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- f. The examiner notes that it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *MPEP 2144.05*.
- 31. Regarding claim 2, Grogan as modified above further discloses fastening elements symmetrically positioned on opposite sides of a central vertical plane (36).
- 32. Regarding claim 3, Grogan as modified above further discloses first (the four 36 on the left) and second (the four 63 on the right) sets including more than two fastening elements spaced across the top of the module, each spaced from another by about 2260 mm (those on the front are spaced from those on the back by about 2260 (c. 2, 10-15)).
- 33. Regarding claim 4, Grogan as modified above further discloses sets each including fastening elements at opposite side edges of the top (36).
- 34. Regarding claim 5, Grogan as modified above further discloses first and second sets at opposite ends (Fig. 1).
- 35. Regarding claim 6, Grogan as modified above further discloses elongate members in the region of each of the eight edges of the cuboid (30) and plural metal panels (12, 20) attached to at least some of the elongate members.
- 36. Regarding claims 7 and 8:
 - a. Grogan as modified above further discloses metal panels on all side and one of the two end faces (c. 4, 42-44).
 - b. Grogan does not expressly disclose that the second end face, top, or bottom include metal panels.

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- c. It would have been an obvious matter of design choice to modify the second end face, top, and bottom by making them of metal as in the other module panels, since applicant has not disclosed that metal walls solves any stated problem or is for any particular purpose and it appears that the walls of undisclosed material would perform equally well in providing a structurally sound module. Further, such a modification would be beneficial as it would provide a module with uniform outer facing material.

37. Regarding claim 9, Grogan as modified above further discloses at least some corrugated panels (26).

38. Regarding claim 10, Grogan as modified above further discloses at least some composite panels including insulating material (c. 4, 42-46; panels can be made with metal and plywood in combination; plywood has some insulative ability, and is therefore considered an insulating material).

39. Regarding claims 17-19, Grogan as modified above further discloses fastening elements (36) capable of fastening to an adjacent module in an alongside, end-to-end, or vertical relationship.

40. Regarding claim 20, Grogan as modified above further discloses at least some fastening elements in the corner regions (36).

41. Regarding claim 21, Grogan as modified above further discloses at least some fastening elements of hollow blocks with openings capable of accepting connector elements (36).

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42. Regarding claim 34, Grogan as modified above further discloses a module exterior including a plurality of additional fastening elements (four 36 nearest middle) capable of interfacing with a roofing system (14, Fig. 1).

43. Claims 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grogan (5,072,845) in view of Wiley, Jr. et al. (5,706,614).

44. Regarding claims 11 and 13-16:

- a. Grogan discloses a module as set forth above.
- b. Grogan does not expressly disclose a door opening in the side or a window opening in the end [claims 11-14], or kitchen or bathroom pods claims [15, 16].
- c. Wiley discloses a module including a side with a door opening (11, Fig. 2) [claim 11] extending from a bottom region to a top region [claim 13] and a window opening (11) extending upwardly from a region partway up the face [claim 14]. Wiley further discloses a kitchen pod (19, Fig. 5) [claim 15] and a bathroom pod (20) [claim 16], each occupying a minor part of the interior volume.
- d. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the module of Grogan by including window and door openings along a side, and bathroom and kitchen fixtures, as taught by Wiley, in order to allow the module to be entered and to allow it to be used as a human dwelling.

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45. Regarding claim 12:

- a. Grogan/Wiley discloses a module as set forth above, with Wiley disclosing window openings along a side (11).
- b. Grogan/Wiley does not expressly disclose window openings along a module end.
- c. It would have been an obvious matter of design choice to modify the module of Grogan/Wiley by providing a window opening along an end of the module, since applicant has not disclosed that having an opening along the end solves any stated problem or is for any particular purpose and it appears that an opening along the side would perform equally well as a window opening. Further, such a modification would be beneficial as it would provide the habitant a view outside the end walls and provide the opportunity for greater circulation.

46. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grogan (5,072,845) in view of Racy (3,752,511).

- a. Grogan discloses a module as set forth above.
- b. Grogan does not expressly disclose connector elements insertable into the fastening element [claim 23] wherein the connector is inserted in one hole and a fastener is inserted in a different hole [claim 24].

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- c. Racy discloses connector elements (16, Fig. 1) insertable into the fastening element [claim 23] wherein the connector is inserted in one hole (Fig. 4) and a fastener (27) is inserted in a different hole (Fig. 4) [claim 24].
- d. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the module of Grogan by connecting it to adjacent modules using connector elements as taught by Racy, in order to prevent the modules from moving relative one another and provide a strong connection therebetween.
- e. The examiner notes that claim 24 is considered to be a product-by-process claim. The patentability of the product does not depend on its method of production. Determination of patentability is based on the product itself. See MPEP 2113. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985).

47. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grogan (5,072,845) in view of Morris et al. (3,722,714).

- a. Grogan discloses a module as set forth above.
- b. Grogan does not expressly disclose a connector element having four [claim 27] or eight [claim 28] parts capable of simultaneous insertion in adjacent modules.

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- c. Morris discloses connector elements (53) having eight (Figs. 2, 3, 7) parts insertable into eight different fastening element apertures of adjacent modules (Fig. 3).
- d. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the module of Grogan by connecting it to adjacent modules using a connector element as taught by Morris, in order to prevent the modules from moving relative one another and provide a strong connection therebetween.

48. Claims 29 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grogan (5,072,845) in view of Robishaw et al. (EP0175446).

- a. Grogan discloses a module as set forth above.
- b. Grogan does not expressly disclose additional fastening elements located partway along the bottom [claim 29] and top [claim 38] end edges.
- c. Robishaw discloses additional fastening elements located partway along the bottom (20', 22', Fig. 1) [claim 29] and top (20, 22) [claim 38] end edges.
- d. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the module of Grogan by adding additional fastening elements along the length of the end edges as taught by Robishaw, in order to provide more connection points along adjacent ends and ensure a stronger connection between adjacent modules at their meeting ends.

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49. Claims 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grogan (5,072,845) in view of Austin, Jr. (6,381,977).

- a. Grogan discloses a module as set forth above.
- b. Grogan does not expressly disclose module lengths of 6000-6100mm [claim 31], 12100-12300mm [claim 32], or 13600-13800mm [claim 33].
- c. Austin discloses that modular storage containers are typically made in lengths of 20ft [claim 31], 40ft [claim 32], and 45ft [claim 33] (c. 1, 10-13).
- d. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the module length of Grogan by making it 20, 40, or 45 ft as taught by Austin, in order to adhere to industry standards.
- e. The examiner notes that where the only difference between the prior art and the claims is a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device is not patentably distinct from the prior art device. *MPEP 2144.04*.

50. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over DiMartino, Sr. (4,599,829).

- a. DiMartino discloses a modular building as set forth above.
- b. DiMartino does not expressly disclose that one of his modules has a length less than one fifth of the length of his longest module.

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- c. It would have been an obvious matter of design choice to modify the length of one of DiMartino's modules by giving it the length claimed, since applicant has not disclosed that such specific length solves any stated problem or is for any particular purpose and it appears that the length of the modules of DiMartino would perform equally well as modular building blocks.
- d. The above combination teaches the claim limitations except for the specifically recited dimensions. Applicant has failed to establish a criticality for the explicitly claimed dimensions. In *Gardner v. TEC Systems, Inc.*, the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device. *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984) (citing MPEP 2144.04(IV)). From the above reasoning and for the lack of unpredictable results, it would have been an obvious design choice to dimension the combination as specified in this claim.
- e. Furthermore, modifying the module of DiMartino by giving it a length less than one fifth of the length of his longest module would have been beneficial, as it would have provided his building system with modules of different sizes, allowing for more combinations thereof.

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- f. The examiner notes that it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *MPEP 2144.05*.

51. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over DiMartino, Sr. (4,599,829) in view of Payne et al. (6,155,747).

- a. DiMartino discloses a modular building as set forth above, including a foundation interface (Fig. 4) whose upper face carries connector elements.
- b. DiMartino does not expressly disclose that the foundation interface includes multiple connectors spaced in a rectangular ring.
- c. Payne discloses that foundation interface connections can be formed in a rectangular ring with connectors at each corner (348, 360, Fig. 17) and alignment structure forming the ring (340, 334, 344, 336).
- d. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the connectors of DiMartino by placing them in a rectangular ring mounting structure including alignment beams as taught by Payne, in order to ensure each module is placed in the proper position on the foundation and to align adjacent members.

52. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over DiMartino, Sr. (4,599,829) in view of Tomkins et al. (6,877,939).

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- a. DiMartino discloses a modular building as set forth above, including a inter-story interface (Fig. 7) whose faces carry connector elements.
- b. DiMartino does not expressly disclose that the inter-story interface includes multiple connectors spaced in a rectangular ring.
- c. Tomkins discloses that inter-story interface connections (10, Fig. 4) can be formed in a rectangular ring with connectors spaced therealong (13) and connected by a ring structure (11, 12, Fig. 1), and also teaches connectors with two male elements (Fig. 8A).
- d. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the connectors of DiMartino by placing them in a rectangular ring mounting structure as taught by Tomkins, in order to ensure each module is connected to the module below and to align adjacent members.

53. Claims 22, 23, 25, 26, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grogan (5,072,845) in view of DiMartino, Sr. (4,599,829).

54. Regarding claim 22:

- a. Grogan discloses a module as set forth above, including fastening elements (36).
- b. Grogan does not appear to expressly disclose that the fastening elements have openings in each of their top, side, and end faces [claim 22].

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- c. DiMartino discloses that it is notoriously well-known for shipping modules to have three such openings (Fig. 12).
- d. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the fastening elements of Grogan by providing them with three openings in their faces as taught by DiMartino, in order to allow handling and connecting elements to engage them along either their end, side, or top faces.

55. Regarding claims 23, 25, and 26:

- a. Grogan/DiMartino discloses a module with multi-hole fastening elements as set forth above.
- b. Grogan does not expressly disclose connector elements capable of fastening into one of the fastener openings [claim 23] through the use of threaded fasteners engaging the connector elements [claim 25], or connectors having two parts capable of insertion into openings of facing fastener elements [claim 26].
- c. DiMartino discloses connector elements (85, Fig. 7) capable of fastening into one of the fastener openings (Fig. 7) [claim 23] through the use of threaded fasteners (88) engaging the connector elements [claim 25], or connectors having two parts capable of insertion into openings of facing fastener elements (Fig. 7) [claim 26].
- d. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the module of Grogan by connecting it to

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adjacent modules using connector elements as taught by DiMartino, in order to prevent the modules from moving relative one another and provide a strong connection therebetween.

56. Regarding claim 49:

- a. Grogan discloses a module as set forth above.
- b. Grogan does not expressly disclose a multiplicity of modules fastened together to form a building.
- c. DiMartino discloses that modules like those of Grogan may be used in multiples and connected together to form buildings (Fig. 1).
- d. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to provide multiples of the modules of Grogan and connecting them together to form a building as taught by DiMartino, in order to provide a multi-story building of greater width and length that is easily transportable.

57. Claims 51 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over DiMartino, Sr. (4,599,829) in view of Morris et al. (3,722,714).

- a. DiMartino discloses a modular building as set forth above, wherein the modules are connected in a top-to-bottom relationship and are placed in side-by-side and end-to-end adjacent configurations (Fig. 1).
- b. DiMartino does not expressly disclose connectors extending in these directions.

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- c. Morris discloses that containers can be used to attach modules either end-to-end or side-by-side (53, Fig. 2).
- d. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the building of DiMartino by adding connectors between end-to-end and side-to-side modules as taught by Morris, in order to ensure a more secure connection between all adjacent modules.

Conclusion

58. The cited patents listed on the included form PTO-892 further show the state of the art with respect to storage modules in general.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANON C. PAINTER whose telephone number is (571)270-3110. The examiner can normally be reached on Mon-Fri 7:30AM-5:00PM, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rich Chilcot can be reached on (571) 272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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